

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P309838

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CP125-W2A-U-5000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P309838  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30HE-UNV-L82765-RDP-CP125-W2A-U-5000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (336) 5000K TUNABLE CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: 

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

**Summary**

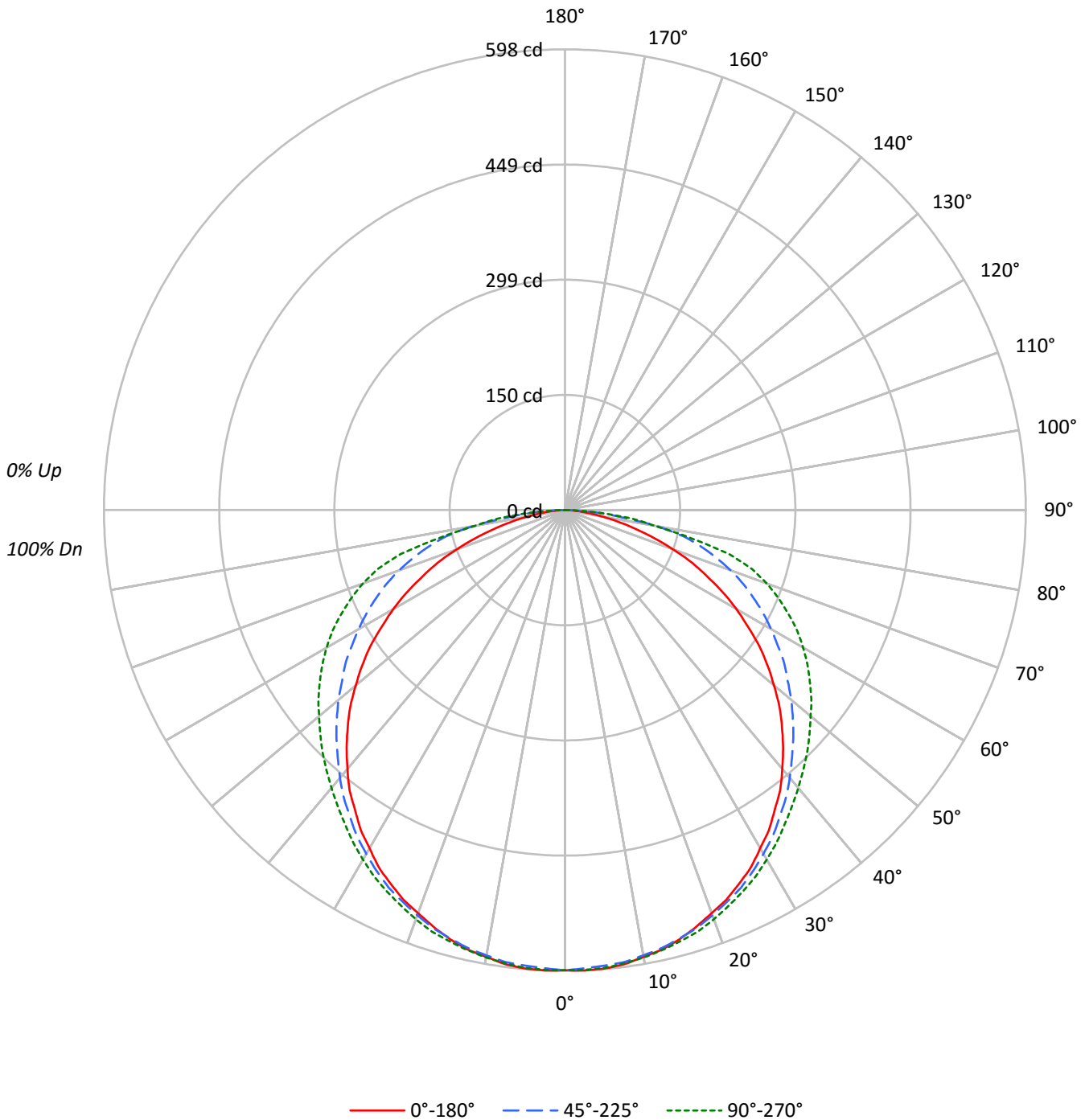
Lumens per Lamp: N/A  
Luminaire Lumens: 1899.0 lumens  
Efficiency: N/A  
Efficacy: 87.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	804	804	804
5°	807	801	805
10°	804	802	806
15°	803	802	807
20°	797	801	809
25°	794	803	811
30°	787	800	814
35°	780	798	817
40°	771	797	827
45°	758	798	846
50°	741	803	871
55°	723	815	910
60°	692	832	961
65°	648	861	1020
70°	589	900	1097
75°	500	950	1146
80°	394	956	927
85°	290	727	814



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.6	3.0
10°-20°	163.0	8.6
20°-30°	249.3	13.1
30°-40°	304.8	16.0
40°-50°	324.8	17.1
50°-60°	310.6	16.4
60°-70°	263.1	13.9
70°-80°	176.8	9.3
80°-90°	49.9	2.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	469.0	24.7
0°-40°	773.8	40.7
0°-60°	1409.2	74.2
0°-90°	1899.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1899.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	597	596	593	596	596	57
15°	576	576	576	580	579	163
25°	535	537	541	545	546	247
35°	475	478	486	496	497	297
45°	398	405	419	437	445	307
55°	308	319	348	375	388	274
65°	204	224	270	306	320	202
75°	96	131	183	214	220	103
85°	19	39	47	51	53	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	597.2	597.2	597.2	597.2	597.2
2.5°	598.1	598.1	595.3	597.2	597.2
5°	597.2	596.2	593.4	596.2	596.2
7.5°	594.4	593.4	591.5	594.4	593.4
10°	588.7	588.7	586.8	589.6	589.6
12.5°	584.0	583.1	582.1	585.9	584.9
15°	576.5	576.5	575.5	580.2	579.3
17.5°	567.0	568.0	568.9	572.7	573.6
20°	556.7	558.6	559.5	565.2	565.2
22.5°	547.3	548.2	550.1	555.7	555.7
25°	535.0	536.9	540.7	545.4	546.3
27.5°	522.8	523.7	528.4	535.0	536.0
30°	506.8	509.6	515.2	522.8	523.7
32.5°	492.6	495.5	502.0	509.6	511.5
35°	474.7	478.5	486.0	495.5	497.3
37.5°	458.7	461.5	471.0	481.3	484.2
40°	438.9	444.6	454.0	466.3	471.0
42.5°	419.2	424.8	436.1	452.1	457.8
45°	398.4	405.0	419.2	437.1	444.6
47.5°	377.7	385.2	401.3	422.0	430.5
50°	354.2	363.6	383.4	406.9	416.3
52.5°	331.6	342.9	364.5	390.9	403.1
55°	308.0	319.3	347.6	374.9	388.1
57.5°	281.6	296.7	327.8	358.9	373.0
60°	257.1	271.3	309.0	342.9	357.0
62.5°	230.8	249.6	290.1	325.9	340.0
65°	203.5	224.2	270.3	306.1	320.3
67.5°	179.0	201.6	250.6	286.3	300.5
70°	149.8	178.0	228.9	264.7	278.8
72.5°	122.5	153.5	206.3	241.1	254.3
75°	96.1	130.9	182.7	213.8	220.4
77.5°	71.6	108.3	158.2	171.4	166.7
80°	50.9	86.7	123.4	116.8	119.6
82.5°	33.0	65.9	76.3	86.7	89.5
85°	18.8	38.6	47.1	50.9	52.7
87.5°	8.5	14.1	18.8	18.8	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)